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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/801,267	03/06/2001	Rachel A. Meyers	10448-025001/MPI2000-061P	5520	
75	90 10/08/2002				
LOUIS MYERS			EXAMINER		
FISH & RICHA 225 Franklin Str		EINSMANN, JULIET CAROLINE			
Boston, MA 02	2110-2804		ART UNIT PAPER NUMBER		
			LL	PAPER NUMBER	
			1634	4)	
			DATE MAILED: 10/08/2002	()	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)		
Office Action Summers	09/801,267	MEYERS, RACHEL A.		
Office Action Summary	Examiner	Art Unit		
The MAN INC DATE of this communication and	Juliet C Einsmann	1634		
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address		
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).  Status	36(a). In no event, however, may a reply be tin within the statutory minimum of thirty (30) day rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).		
1) Responsive to communication(s) filed on <u>02 J</u>	<u>uly 2002</u> .			
2a)☐ This action is <b>FINAL</b> . 2b)⊠ Thi	s action is non-final.			
Since this application is in condition for allowal closed in accordance with the practice under Disposition of Claims				
4) Claim(s) 2-36 is/are pending in the application	•			
4a) Of the above claim(s) <u>8-17 and 19-36</u> is/are	withdrawn from consideration.			
5) Claim(s) is/are allowed.				
6)⊠ Claim(s) <u>2-7 and 18</u> is/are rejected.				
7)⊠ Claim(s) <u>18</u> is/are objected to.				
8) Claim(s) are subject to restriction and/or	r election requirement.			
Application Papers				
9)⊠ The specification is objected to by the Examiner				
10)⊠ The drawing(s) filed on <u>09 July 2001</u> is/are: a)⊠				
Applicant may not request that any objection to the		· ·		
11) The proposed drawing correction filed on	, , , , , ,	oved by the Examiner.		
If approved, corrected drawings are required in rep 12)☐ The oath or declaration is objected to by the Exa				
	animen.			
Priority under 35 U.S.C. §§ 119 and 120	anionity and a 25 H O O C 440/s	. (4) (6)		
13) Acknowledgment is made of a claim for foreign	priority under 35 O.S.C. § 119(8	i)-(d) or (i).		
a) All b) Some * c) None of:	. hava basa assabisad			
1. Certified copies of the priority documents		·		
<ul> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage</li> </ul>				
<ol> <li>Copies of the certified copies of the prior application from the International But</li> <li>See the attached detailed Office action for a list</li> </ol>	reau (PCT Rule 17.2(a)).	-		
14)⊠ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).				
a) ☐ The translation of the foreign language pro 15)☐ Acknowledgment is made of a claim for domesti	- ·			
Attachment(s)	-			
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.	5) Notice of Informal	y (PTO-413) Paper No(s) Patent Application (PTO-152)		

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#### **DETAILED ACTION**

#### Election/Restrictions

- 1. Applicant's election without traverse of Group I in Paper No. 10 is acknowledged.
- 2. Applicant's amendment filed 7/2/02 (paper number 10) has been entered. Claim 1 was cancelled and claims 2-5, 7 and 18 were amended. Claims 2-7 and 18 are examined herein.

## Information Disclosure Statement

3. The information disclosure statements filed 9/4/01 and 1/16/02 have been entered into the file and considered (paper numbers 6 and 7). References AF and AL were modified on the substitute-1449 so as to delete the reference to the internet sites and to include the page numbers of the references. Reference AM was lined through because it does not contain a complete citation. This reference has been considered, but if applicant wishes for the reference to appear on the face of any eventually issued patent a new 1449 with the complete citation should be submitted.

### Specification

- 4. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code (see pages 11 and 14). See MPEP § 608.01.
- 5. The specification is also objected to because it repeatedly refers to "ATCC as Accession Number \_\_\_\_\_." The presence of the blank throughout the specification leaves the specification unclear (see at least pages 2, 3, 11, 24, and 28-34). Amendment of the specification to recite the accession number is required. It is noted that, in the interest of compact prosecution, Applicants

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may refrain from amending the claims until the time of the actual deposit as set forth in 37 CFR 1.801-1.809. However, upon such a deposit, amendment of the specification is required.

#### Claim Objections

6. Claim 18 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 18 is of broader scope than claim 2 from which it depends, therefore it fails to properly limit the claim from which it depends.

## Claim Rejections - 35 USC § 112

- 7. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 8. Claims 2-7 and 18 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

It is apparent that the DNA insert of the plasmid deposited with ATCC is required to practice the claimed invention. As such, they must be readily available or obtainable by a repeatable method set forth in the specification, or otherwise known and readily available to the public. If it is not so obtainable or available, the requirements of 35 USC 112, first paragraph may be satisfied by an enabling deposit of the plasmid.

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It is noted that Applicants have deposited the organism but there is not indication in the specification as to the public availability of the plasmid (see specification pages 11-12), thus it is considered insufficient assurance that all of the conditions of 37 CFR 1.801-1.809 have been met. If a deposit has been made under the terms of the Budapest Treaty, then an affidavit or declaration by Applicants, or a statement by an attorney of record over his or her signature and registration number, stating that the instant invention will be irrevocably and without restriction released upon issuance of a patent would satisfy the deposit requirement made herein. If a deposit has not been made under the Budapest Treaty, then in order to certify that the deposit meets the criteria set forth in 37 CFR 1.801-1.809 and MPEP 2402-2411.05, Applicant may provide assurance of compliance by affidavit or declaration, or by a statement by an attorney of record over his or her signature and registration number showing that:

- (a) during pendancy of the application, accession to the invention will be afforded to the Commissioner upon request;
- (b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;
- (c) the deposit will be maintained in a public depository for a period of 30 years, or 5 years after the last request or for the enforceable life of the patent, whichever is longer;
- (d) a test of the viability of the biological material at the time of deposit (see 37 CFR 1.807); and
- (e) the deposit will be replaced if it should ever become inviable.

Amendment of the specification to recite the date of the deposit and the proper name of the deposited plasmid (i.e. the ATCC accession number) is also required to satisfy the deposit requirement.

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9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 2-7 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is indefinite because of the recitation "the DNA insert of the plasmid deposited with ATCC as Accession Number \_\_\_\_\_" because the claims do not particularly point out the claimed subject matter. In the interest of compact prosecution, Applicants may refrain from amending the claims until the time of the actual deposit as set forth in 37 CFR 1.801-1.809. Failure to amend claim 2 will, however, result in abandonment for failure to prosecute.

#### Claim Rejections - 35 USC § 103

- 11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lawson et al. (Biochemistry, 1993, Vol. 32, pages 8987-8993) in view of Ahern (The Scientist, Vol. 9, No. 15, p. 20, 1995).

Lawson et al. provide a compound which selectively hybridizes to a nucleic acid molecule comprising SEQ ID NO: 1 or SEQ ID NO: 3 or encoding SEQ ID NO: 2. Lawson et al. teach a cDNA encoding bovine pyruvate dehydrogenase phosphatase (fig. 2). This compound has 92.5% local similarity with instant SEQ ID NO: 3. An alignment is provided at the end of

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this office action. The sequence on the top row is instant SEQ ID NO: 1 and the sequence on the bottom row it the sequence provided by Lawson et al. This sequence would be expected to selectively hybridize to SEQ ID NO: 3 even under conditions of high stringency.

Lawson et al. does not include the compound in a kit with instructions for use.

However, the inclusion of reagents for the practice of molecular biology techniques in kits with instructions for use was routine in the art at the time the invention was made. For example, Ahern teaches that a lab can purchase kits that contain all of the biochemicals needed to perform research applications from the molecular level right up to the level of the organism (p. 4 of 5) (Reference provided from a web-site print out; page numbers refer to the web site print out). Further Ahern teaches that such kits supply all of the necessary reagents for a particular research application and provides them with specific instructions to follow (p. 4 of 5).

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to have packaged the reagents taught by Lawson et al. into a kit for the further practice of methodologies using the cDNA taught by Lawson et al. The ordinary practitioner would have been motivated to provide such a kit in order to provide other scientists with the means to utilize the cDNA taught by Lawson et al. in molecular biology research, since Ahern et al. teach "The large selection of prepared biochemicals and kits for specific applications has certainly made life easier for countless researchers (p. 5 of 5)."

## Conclusion

13. Claims 1-7 are free of the prior art. The closest prior art is provided by Lawson et al. who provide a cDNA encoding bovine pyruvate dehydrogenase phosphatase (fig. 2). This compound has 92.5% local similarity with instant SEQ ID NO: 3. An alignment is provided at

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the end of this office action. The sequence on the top row is instant SEQ ID NO: 1 and the sequence on the bottom row it the sequence provided by Lawson et al. The prior art does not teach an isolated nucleic acid as recited in claim 1. Thus, claims 1-7 are free of the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliet C. Einsmann whose telephone number is (703) 306-5824. The examiner can normally be reached on Monday through Friday, from 9:00 AM until 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 and (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Juliet C. Einsmann

Examiner

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September 16, 2002

W. Gary Jones
Supervisory Patent Examiner

Technology Center 1600

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88.0%; Score 1417.4; DB 4; Length 1900;

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Query Match

		Similarity 92.5%; Pred. No. 0; 490; Conservative 0; Mismatches 121; Indels 0; Gaps	\$	0;
Qу	1	atgccagcaccaactcaactgttttttcctctcatccgtaactgtgaactgagcaggatc	60	
Db	165		224	
ДĀ	61	tatggcactgcatgttactgccaccacaacatctctgttgttcctcatcgtacattcct	120	
Db	225	TATGGCACTGCATGTTACTGCCACCACAAACATCTCTGCTGCTCACCCCCTTATATTCCG	284	
QУ	121	cagagtcgactgagatacacacctcatccagcatatgctaccttttgcaggccaaaggag	180	
Db	285	CAGAGTCGCCCGAGATACACCCCCATCCGGCGTATGCTACCTTTTACAGGCCAAAGGAG	344	
QУ	181	aactggtggcagtacacccaaggaaggagatatgcttccacaccacagaaattttacctc	240	
Db	345	AGCTGGTGGCAGTACACCCAAGGAAGGAGAGATACGCTTCCACACCGCAGAAGTTTTACCTC	404	
QУ		acacctccacaagtcaatagcatccttaaagctaatgaatacagtttcaaagtgccagaa		
Db		ACACCTCCCCAAGTCAATAGCATCCTGAAAGCTAATGAGTACAGTTTCAAAGTGCCAGAA		
ДÄ		tttgacggcaaaaatgtcagttctatccttggatttgacagcaatcagctgcctgc		
Db		TTTGATGGCAAAATGTAAGTTCTGTCCTTGGATTTGACAGCAATCAGCTGCCGGCAAAC		
ДУ		gcacccattgaggaccggagaagtgcagcaacctgcttgcagaccagagggatgcttttg		
Db		GCACCCATTGAGGACCGGAGGAGTGCAGCAACCTGCTTGCAGACCAGAGGGATGCTTTTG  qqqqtttttqatqqccatqcaqgttqtqcttqttcccaqqcaqtcaqtqaaaqactcttt		
Qу Db				
ДУ		tattatattgctqtctctttqttaccccatqaqactttgctagagattgaaaatgcagtg		
Db				
Qу		gagagcggccgggcactgctacccattctccagtggcacaagcaccccaatgattacttt		
Db			764	
QУ	601	agtaaggaggcatccaaattgtactttaacagcttgaggacttactggcaagagcttata	660	
Db	765		824	
QУ	661	gacctcaacactggtgagtcgactgatattgatgttaaggaggctctaattaat	720	
Db	825	GACCTCAACACTGGGGAGTCGACTGATATTGATGTTAAGGAGGCTTTGATTAATGCTTTC	884	
QУ	721	aagaggcttgataatgacatctccttggaggcgcaagttggtgatcctaattctttct	780	

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Db	885		944
QУ	781	aactacctggtgcttcgagtggcattttctggagccactgcttgtgtgggcccatgtggat	840
Db	945	AACTACCTAGTGCTTCGAGTGGCATTTTCTGGGGCCACAGCTTGCGTGGCCCACGTGGAT	1004
QУ	841	ggtgttgaccttcatgtggccaatactggcgatagcagagccatgctgggtgtgcaggaa	900
Db	1005	GGCGTTGACCTTCACGTGGCCAACACTGGCGATAGCAGAGCCATGCTGGGAGTGCAGGAA	1064
QУ	901	gaggacggctcatggtcagcagtcacgctgtctaatgaccacaatgctcaaaatgaaaga	960
Db	1065		1124
QУ	961	gaactagaacggctgaaattggaacatccaaagagtgaggccaagagtgtcgtgaaacag	1020
Db	1125		1184
QУ	1021	gatcggctgcttggcttgctgatgccatttagggcatttggagatgtaaagttcaaatgg	1080
Db	1185	GATCGGCTGCTTGCTGATGCCTTTTCGGGCTTTTGGAGACGTCAAGTTCAAATGG	1244
QУ	1081	agcattgaccttcaaaagagagtgatagaatctggcccagaccagttgaatgacaatgaa	1140
Db'	1245		1304
QУ	1141	tataccaagtttattcctcctaattatcacacctccttatctcactgctgagccagag	1200
Db	1305	TACACCAAGTTCATCCCTCCTAATTATTACACACCTCCTTATCTCACTGCTGAACCAGAA	1364
QУ	1,201	gtaacttaccaccgattaaggccacaggataagtttctggtgttggctactgatgggttg	1260
Db	1365	GTAACTTACCACCGATTAAGGCCACAGGATAAATTTCTGGTACTGGCGACTGATGGGCTG	1424
QУ	1261	tgggagactatgcataggcaggatgtggttaggattgtgggtgagtacctaactggcatg	1320
Db	1425	TGGGAGACAATGCACAGGCAGGATGTGGTTAGGATTGTGGGTGAGTACCTAACAGGCATG	1484
Qу	1321	catcaccaacagccaatagctgttggtggctacaaggtgactctgggacagatgcatggc	1380
Db	1485	CACCACCAGCAGCCAATAGCCGTTGGTGGCTATAAGGTGACTCTGGGGCAGATGCATGGC	1544
QУ	1381	cttttaacagaaaggagaaccaaaatgtcctcggtatttgaggatcagaacgcagcaacc	1440
Db	1545	CTTTTAACAGAACGGAGAGCTAAGATGTCATCGGTGTTTGAGGACCAGAATGCAGCAACC	1604
Qу	1441	catctcattcgccacgctgtgggcaacaacgagtttgggactgttgatcatgagcgcctc	1500
Db .	1605	CACCTTATTCGCCACGCTGTGGGCAACAATGAGTTTGGGGCTGTTGATCATGAGCGCCTC	1664
QУ	1501	tctaaaatgcttagtcttcctgaagagcttgctcgaatgtacagagatgacattacaatc	1560
Db	1665		1724

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Qy 1561 attgtagttcagttcaattctcatgttgtaggggcgtatcaaaaccaagaa 1611

Db 1725 ATTGTAGTTCAGTTCAATTCTCATGTTGTAGGGGCATATCAAAACCAGGAA 1775